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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,149

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Ralf Neise

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EXAMINER

BACON, ANTHONY L

ART UNIT

PAPER NUMBER

3747

MAIL DATE

DELIVERY MODE

02/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,149	Applicant(s) NEISE, RALF	
	Examiner ANTHONY L. BACON	Art Unit 3747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06 March 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37 CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer et al, US Patent 5,672,818 in view of Zdanys, Jr. et al, US Patent 5,684,407.

3. In Re claim 1, with reference to figures 1 and 2, Schaefer et al ('818) discloses a throttle valve for an internal combustion engine comprising:

- an electric motor (20)
- a gear unit connected to the electric motor, whereby the adjusting device (throttle valve) is arranged in a housing that can be closed via a cover, electrical conductor tracks (51-56) are arranged in the cover to connect connection contacts (22, 23, 42) of the electric motor and a position detecting device (40) to a plug of the throttle valve (44).
- wherein the electrical conductor tracks include first conductor tracks and second conductor tracks comprising metal stampings that are connectable to the housing with positive engagement and wherein these stampings have a defined shape.

4. See at least column 2, lines 33-67, column 3, lines 2-5, 9-10 and 19-29, column 4, lines 1-5, 10-11 and 24-31, and column 7, lines 35-45.

5. Schaefer et al ('818) lacks whereby the conductor tracks are replaceable with the plug.

6. However, Zdanys, Jr. et al ('407), with reference to figures 7-9, discloses an electronic circuit for a position sensor wherein the electrical connector is made from a leadframe attached to a circuit board and then soldered. See column 4, lines 31-60.

Art Unit: 3747

7. The examiner notes that the term housing is defined as “anything that covers or protects” according to dictionary.com. Further, regarding the phrase “positively engaged”, the examiner has interpreted this to mean securely connected or otherwise fastened to. Also, because the connectors of Zdanys, Jr. et al are crimped to the board and then soldered, they provide for a connector that is also replaceable with the plug because the connection can be unsoldered, opened and then removed.

8. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide replaceable conductor tracks as taught by Zdanys, Jr. et al ('407) in the throttle valve of Schaefer et al ('818) because the technique for a replaceable conductor with a plug is generally known from Zdanys, Jr. et al ('407) and one of ordinary skill in the art at the time the invention was made could have applied the technique to the throttle valve of Schaefer et al ('818) by known methods without changing the function, and the combination would have provided predictable results to one of ordinary skill in the art.

9. In Re claim 2, Zdanys, Jr. et al ('407) further discloses the electrical conductor tracks comprise a perforation comb, and individual conductor tracks are connected via bridges, wherein each connection can be severed through a stamping process after the perforation comb has been placed in the housing. The examiner notes that the perforation comb is disclosed by figure 7 as best understood by the examiner.

10. In Re claims 3 and 12, Schaefer et al ('818) further discloses wherein the first end of the electrical conductor tracks lead to the plug. Zdanys, Jr. et al ('407) further discloses that the conductor tracks lock with stamped-out locking projections.

Art Unit: 3747

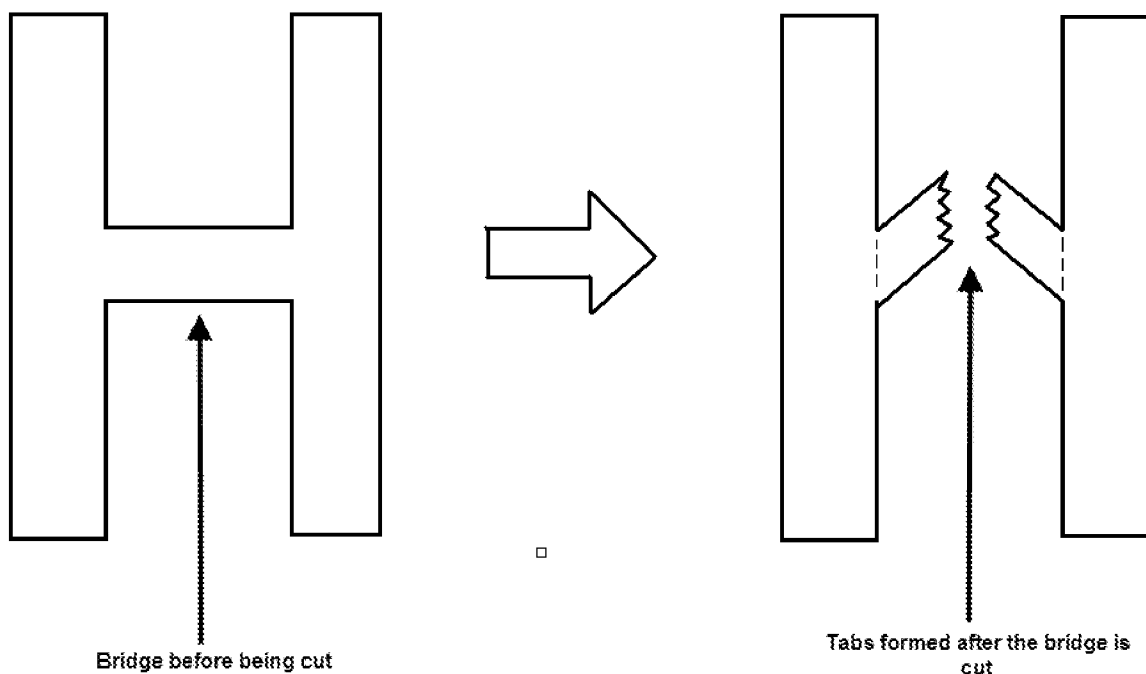
11. In Re claims 4-6 and 13, Schaefer et al ('818) further discloses wherein first ends of the electrical connector tracks lead to the plug, and an electrical contact to the pins is provided via a press connection. The press connection is provided by the electrical connector to the ECU when the pins of the plug are pressed into the mating receptacles of the connector. Schaefer et al ('818) further discloses that the second ends of the first conductor tracks provide contact to the motor and are plugged into receptacle pockets (22, 23) of the housing, where the second ends provide a frictional connection to the connecting lugs of the motor. Schaefer et al ('818) also discloses that the second ends of the second conductor tracks provide contact to the position detecting device and are shaped so that a connection to the connection contacts of the position detecting device is provided by bracing the second ends of the of the second conductor tracks against a structural component of the position detecting device.

12. In Re claim 7, Schaefer et al ('818) further discloses that the position detecting device is a potentiometer and that the wipers are braced against the contacts provided in the cover and are appropriately shaped to do so. See column 3, lines 38-41 and 53-55. Zdanys, Jr. et al ('407) provides an example of a circuit board for a potentiometer. In other words, at least a portion of a potentiometer comprises a circuit board, the contacts of which are made to contact the conductor tracks in the '818 reference.

13. In Re claim 8, Zdanys, Jr. et al ('407) further discloses wherein the electrical conductor tracks are fixed with positive engagement in the area of respective ends of the electrical conductor tracks and corresponding bridges (74). See figure 7.

Art Unit: 3747

14. In Re claim 9, Zdanys, Jr. et al ('407) , with reference to figure 7, discloses tabs for crimping to promote positive engagement by passing said tabs through a recess in a substrate and also to separate the bridges in order to prevent a short. The examiner notes that by cutting the bridges down the center, the bridge would necessarily deform during this process, during which a tabular feature would then be formed which could be used in a known manner, such as previously mentioned, in which case the bridge would then be able to also provide positive engagement to the housing. See also the figure below.



15. In Re claim 10, the examiner takes official notice that hot caulking or hot gluing of components for the purpose of attaching them together is well known, as are the advantages and disadvantages of such processes, and the use of hot caulking or

Art Unit: 3747

gluing, in order to attach a supporting means for a conductor to a housing would require only routine skill in the art.

16. In Re claims 11 and 14-16, the examiner takes official notice that sealing adhesives, including their uses, advantages and disadvantages, are well known, and one of ordinary skill in the art at the time the invention was made would be reasonably expected to apply said sealing adhesives to any location where sealing and adhesion are desired, including at at least one position of:

- the electrical conductor tracks
- in the area of the connection between the pins of the plug and the electrical conductor tracks, or
- the electrical conductor tracks and in the area of the connection between the pins of the plug and the electrical conductor tracks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY L. BACON whose telephone number is (571)270-5623. The examiner can normally be reached on Mon-Fri, 7:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Cronin can be reached on (571)272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3747

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ANTHONY L. BACON/
Examiner, Art Unit 3747

/Stephen K. Cronin/
Supervisory Patent Examiner, Art Unit 3747